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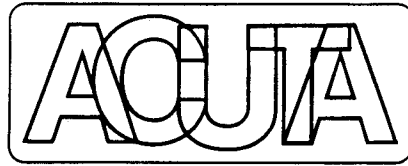
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NEWS

Association of College & University Telecommunication Administrators
THE VOICE OF TELECOMMUNICATIONS IN HIGHER EDUCATION

VOLUME 11, NUMBER 11

NOVEMBER 1982

RUTH A. MICHALECKI, EDITOR

211 Nebraska Hall, University of Nebraska, Lincoln, NE 68588 • Telephone (402) 472-2000

INSIDE ACUTA

—Ruth Michalecki, Nebraska

UNIVERSITY OF MICHIGAN

This month ACUTA is taking a look at the University of Michigan, located in Ann Arbor, Michigan.

This prestigious institution was founded in 1817 and was originally located in Detroit. In 1837 it was relocated in Ann Arbor. The total student enrollment for the entire university is 46,800 and on the Ann Arbor Campus it totals 35,223. The Ann Arbor Campus has 2800 faculty and about 13,000 support staff.

The University of Michigan offers 210 Masters Programs and 123 PhD Programs, according to the specific field of study. Numbered among their distinguished alumni are Gerald Ford, former President and six astronauts (Jack Lousma, Edward White, James McDivitt, Alfred Worden, James Irwin and David Scott).

In 1981, their research budget was \$129 million. They are reknown for their large Medical Center which consists of an 82 acre complex with research, teaching, & patient care involving 9 hospital units, adjacent to the main campus.

Athletics play a major role at Michigan. In football, they are usually on top of the Big Ten, with the 'lesser' known sports also faring very well.

Don Gagnon is the Director of Telecommunications. This is a position he has held for 13 years. He has been at the university for 19 years, working in other areas before moving to his present spot. Telecommunications is under the Vice-President for Business & Finance and Don reports to the Assistant Vice-President.

TELEPHONE SYSTEM:

A Centrex II, ESS #1 Central Office is the switching vehicle for their telephone system. It is leased from Michigan Bell and was installed in July, 1981. They are using 10,000 plus administrative lines and 6,000 dormitory lines. When the conversion to Centrex II was made, the dorm lines were left on the old Centrex I switch. Cable/wiring plant is owned by Michigan Bell and consists of both overhead and buried lines. The campus is encompassed by a major tunnel system.

Recently they signed a Centrex III Rate Stabilization Contract with Michigan Bell. The contract is for three years and Don feels this action will result in a cost avoidance of approximately \$200,000 over the life of the contract. He also feels the signing of this contract has bought them some valuable planning time while they

evaluate future needs and determine the path they want to take.

The current rate structure is:

Administrative Stations--\$11.70 plus set
 Dormitory Stations----- 9.45 plus set
 Single line instrument -- 2.70
 Add \$1.39 per station plus 60¢ additional
 for the single line set if touch tone line.

They do not own any of their own instruments, instead they lease them from Michigan Bell. If they install the same station in several locations, the additional charge for the extra locations is the price of the set on the end.

Like many of us, the biggest single increase they have had is in the area of service/installation charges. Order writing charge is \$19.66. If they have a new install, the total would be about \$85.00--a move would be about \$40.00. Local equipment rate increases have averaged somewhere around 6 to 8% per year over the past five years.

All dorm rooms have a telephone. The University is responsible for the monthly rent with the costs paid by the students as a part of the room rent. Long Distance is handled directly by Michigan Bell with the student, through a contract with the student. Most of the dorm rooms have two students per room and the long distance bill is sent to the room and is settled between the two occupants of the room. Toll restrictions are placed on the dorm line for non-payment of toll calls. This restriction can also deny incoming long distance, but the dorm line cannot be denied local service due to non-payment of toll. Don said he is never involved in a collection problem and said they have consistently remained out of any collection negotiations. Most difficulties seem to arise when one student pays their bill, but the roommate doesn't....

ALTERNATE ROUTING SYSTEM:

They have a fairly large network and use the ARS provided in their switch. They do not use queue and do not overflow to DDD. Access to the network is by dialing level 8 and they use ANI entirely--no special accounting/dialing codes. Network consists of 59 WATS, 53 Intrastate FX and 18 Interstate FX lines. They are not using any of the specialized common carriers because their rates are higher than the rates being charged to the departments. Don said he is continually monitoring his network and if MCI or others would offer more cost-effective lines, he would add them to the system.

All calls are billed back to the using department

University of Michigan, cont'd.

with charges rounded up to the nearest cent. For example, a charge of 7.2¢ would be rounded up to 8¢. They have not changed their rates for three years even though they have experienced rate increases for the lines. He feels some of the reasons they have maintained a low rate per minute is due in part to an aggressive effort on his part to encourage users to make calls at night. One of the major users now places their calls soliciting donations/contributions during the evening to take advantage of the special night rates.

The network averages 360,000 minutes per month, divided about 1/3 intrastate and 2/3 interstate. They do not share any of these facilities with the state, nor do they use any of the state's facilities.

Current rate for network calls:

Interstate -- 24¢ day rate, 13¢ nights
Intrastate -- 13¢ day rate, 06¢ nights

BILLING SYSTEM:

All equipment, OCC, etc., is billed back to the using department with a fixed overhead percentage to cover operational costs. This overhead is called a service charge. Equipment is billed one year in advance at the beginning of the fiscal year--adjustments are made as additions, changes or deletions occur. Some of the areas with cash-flow problems (such as the dorms and the hospital) are billed on a monthly basis. The billing system is computerized and is a product of their Accounting Office. Billing is handled by the Accounting Office with the data being provided by Don's department.

At the University of Michigan, the Telecommunications Department is totally self-supporting.

DIRECTORY ASSISTANCE:

Plans have been underway for several years to computerize the Directory Assistance Operation and Don know exactly what system he wants to install. They are using Micro-Fische now, along with some paper for Directory Information. It is updated every two weeks and new fische made.

Directory Assistance Data is not used for the telephone directory. The directory is not a direct responsibility of Telecommunications, and is published by a commercial publisher. Advertising is sold in the directory and it is a combination Faculty/Staff/Student book. The school is satisfied with the results and they are provided books at no direct cost to the school.

Some of Don's research on computerized directory assistance has indicated he will be able to eliminate 6½ FTE Telephone Operators after installation and training of the system he has in mind. He feels assured his system will be in place right after the first of the year and has promised to keep ACUTA News informed as to his progress.

Telephone service is provided around-the-clock. He has 24 FTE operators, all regular employees. He uses student help only during the first few weeks of school to handle the excess volume of student information calls. Student information is handled separately from regular information. All repair calls are reported direct to telco by the departments involved. Only those calls not getting action are handled by Don or his area.

DATA COMMUNICATIONS:

Only responsibility in this area is to see lines are ordered correctly and installed on time. They do not have a local area network, but they do share a facility with Wayne State, Michigan State and Western Michigan, called the MERIT NETWORK. The network provides data communications between all four schools and is heavily used by faculty/staff and students. Don is responsible only for seeing changes or additions are ordered.

Telecommunications provides FAX facilities for use by entire school. However, Telex/TWX needs are handled by the departments requiring those facilities.

FUTURE PLANNING:

Interconnect feasibility, microwave, local area networks, are all being looked at by a special task force at the university. They have purchased two small Mitel SX-200 PBX Systems to serve two older buildings that were remodeled for the Medical Administration. One was installed in Feb, 82 and the second one in June of 82. They are connected to their central system and so far seem to be very successful.

Don is very interested in capturing some of the 1.2 million dollars in toll calls from the Dorms. He will attend the Profit Management Center in New Orleans in November. He feels he might have to upgrade the dorm lines before he can accomplish resale, but that will remain to be seen.

Very heavy involvement right now in the planning for telecommunications requirements of a new 600 bed hospital. Hospital communications have become very sophisticated and this project is taking a lot of time.

Budget cuts always creates extra workloads, since the first area departments look for ways to cut costs is in telecommunications. A major portion of Don's job is to provide consulting services and assistance to departments making major or minor changes. All orders for telephone service must be processed thru the telecommunications office.

BIGGEST CHALLENGES/OPPORTUNITIES:

Right now, just keeping up with the technology and the industry is a challenge big enough for anyone. As Don said earlier, they feel they have bought some valuable planning time with the rate stabilization contract and they are working with several task forces to determine their future course...

ACUTA:

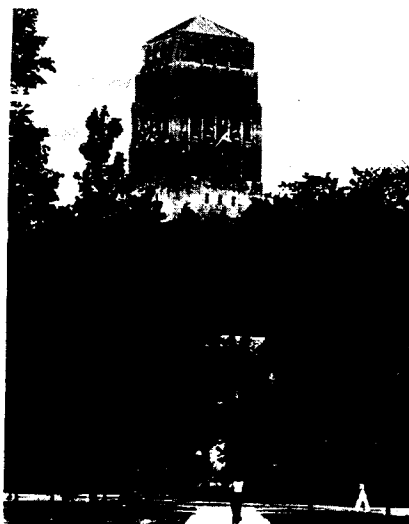
Remembers when ACUTA was just a workshop experience in Lansing, Michigan. He is one of the charter members and credits ACUTA with helping him learn about his profession. He feels the seminars, workshops and conferences are most helpful, but mainly because of the sharing of problems and solutions that happen between the members. Don stated he enjoys receiving ACUTA News and believes it helps the members most by sharing information from one another.

.....
Your editor wishes to thank Don Gagnon for taking the time to talk to us about his job and his University.....☎



▲ (Above)--The Earl V. Moore Building, which houses the University of Michigan School of Music, is located on the University's North Campus. Designed by Eero Saarinen and dedicated in 1964, the structure contains teaching studios, multi-purpose classrooms, recital and rehearsal halls. The wooded hills of North Campus and the small reflecting pool at the back of the structure compliment Saarinen's design.

(Center)--Burton Memorial Tower, completed in 1936, is one of the best known landmarks on The University of Michigan campus. The 10 story limestone tower, 212 feet high, is named to honor the U-M's fifth president, Marion L. Burton. The tower houses the Charles Baird Carillon, the fourth largest in the world by number of bells and the third heaviest by total weight.

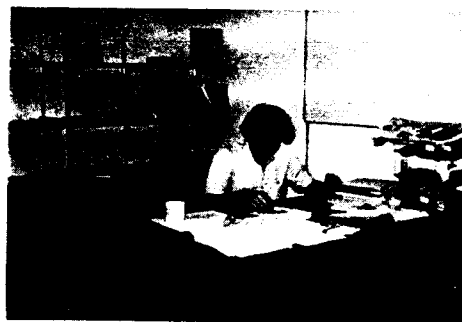
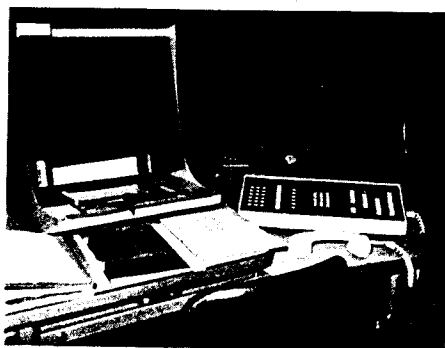


▲ (Above)--Power Center for the Performing Arts on the University of Michigan Campus, with its reflective glass facade, is known for its architectural beauty and its flexible stage design. Its 1,420 seats are arranged in a semi-circular shape with no seat farther away from the stage than 72 feet. The structure is named in honor of the family of Eugene H. Power, former U-M Regent, who contributed a major portion of the funding for its construction.

THE UNIVERSITY OF MICHIGAN

ANN ARBOR, MICHIGAN

FOUNDED IN 1817



▲ (Above) Don Gagnon, Director of Telecommunications at the University of Michigan for 13 years. Don is also a charter member of ACUTA.

◀ (Left)--A view of the Micro-Fische reader and switchboard equipment used at the University.

(Right)--A view of the operators at work in the University of Michigan Telecommunications office. ▶



PARTY LINE

—Ruth Michalecki, Nebraska

Tulane University will host the ACUTA Fall Workshop entitled "PROFIT CENTER MANAGEMENT", on November 14-16, 1982. One of the reasons for selecting this site is the fact that Tulane students currently participate in low cost telephone service.

In August of 1981, Tulane purchased their own telecommunications systems: The Administrative System is served by a Stromberg Carlson DBX-1200 and the residence halls by a Stromberg Carlson Crossreed 1600. A Datapoint Long Distance Control (LDCS) serves both administrative and students as well as the Medical Center.

Initially the students were not allowed access to the LDCS. However, a pilot project was conducted earlier this Spring to determine the feasibility of providing services to the students. This test project was successful and Tulane recently became the first University to provide this service to the students. Tulane expanded the LDCS, added SMDR and made a few other adjustments to their system.

Students are required to make a deposit and to uphold other conditions as specified in their contract.

By November, with several months of experience behind them, Tulane will share their expertise in the resale business. This is an excellent opportunity to see first hand what the opportunities and challenges are...See you in New Orleans!

We have had excellent response from Michael Lane's request for any special tariff filings relating specifically to dormitory/residence hall service. I have forwarded to Mike, copies of tariffs from Steve Merrill-University of Utah; Steve Harward-University of North Carolina; Bruce Hutchison-University of Pittsburgh. Many thanks to all of you.

Because of the large volume of information, it is not possible to report all of it here, but I am going to list some of the interesting points from each:

University of Pittsburgh---Bell of Pennsylvania:

1. Full intercampus dialing-standard numbering plan for both administrative & students.
2. Billed at a rate less than the standard Centrex rate (currently \$6.97 vs \$9.40 admin). If the dorm phone had switchhook features (hold & transfer) the rate would be the same as the standard residential rate - \$8.04).
3. Bulk connect-disconnects at a rate of \$10.00 per line as opposed to standard \$20.00.
4. Tariff permits only ONE set per room. The room is billed for toll calls. The University absorbs the equipment & OCC charges in the room rent. Occupants of the room are responsible for the toll. However, as Bruce reads the tariff, ultimately the university could be held responsible for unpaid toll. Many problems arise as a result of the multi-occupancy situation. Telco watches toll very closely and when bill gets to \$15.00, they send a request for payment. If one of the occupants have paid their portion of the bill and the other hasn't, service is still disconnected. Student phones are denied thru tariff, access to the university's least cost routing network.

Uni of North Carolina---Southern Bell:

1. Rates are the same as single party

PARTY LINE, continued:

residential service.

2. STUDENT MASS SIGN-UP PROVISION: "When optional mass sign up procedures are agreed to and implemented by an institution of higher learning and the Company and these procedures are utilized by a student when establishing residence main telephone service in a dormitory provided or sponsored by the institution, a credit will be made to the student's account."

(a) Credit, per main telephone service - \$5.35.

University of Utah---Mountain Bell:

1. The University of Utah elected not to subscribe to the special school centrex tariff because of the manner in which toll calls were handled in the tariff (completely unrestricted). Steve Merrill said they were concerned about leaving themselves wide open to fraudulent toll by the students, and they requested and received a special assembly tariff for their dorms.

2. The Special Assembly tariff basically provides for centrex-type service in each dorm room, but the phones are programmed with a screening class of service so that students' toll calls must be placed either third-number billed, credit card, or collect. If any toll is fraudulently billed back to the station, the University will refuse payment on that, and it is turned over to Bell's CTI for collection.

Suzanne Dunlap, Facilities Manager-Telecommunications; PPD 701, University of FLORIDA - Gainesville, Florida 32611----has asked for our help concerning billing for services. She specifically requests the following:

- a) How is the monthly service and installation charges billed back to the users?
- b) What information is provided to the users on their bills?
- c) What is included in overhead?
- d) What type of forms, if any, are used?

Suzanne is looking very closely at their present billing system and would like to borrow the perception of her fellow ACUTA members on this item.

Information Resources Group is looking for a "Director of Sales Support" for a client located on the East Coast. The client is a major manufacturer and supplier of Data Communications network equipment. Position requires good technical knowledge of data communications network equipment, must understand design issues, multiplexors, modems, network analysers, etc. Must be able to supply technical back-up and guidance to the field sales force. Direct efforts of a staff of about 10 people. Salary in the high 40's, up to \$50K for the right person. Contact:
Phillip Pickman, President
Information Resources Group
2239 Townsgate Road, Suite 206
Westlake Village, Calif 91361 (805-496-7802)

And from the Uni of North Carolina at Charlotte, we hear Don MacKay has retired. Charles Puckett of the Physical Plant has assumed the telephone responsibilities. They are now being served by a Rolm Switch. Don and his wife are on a two-month tour through the northern states to Victoria, B.C., down the coast, then to Yosemite, and back home thru the Southern States. Don will be working part time for a Public Relations Firm and will do some travelling for them---as the spirit moves him. Our best wishes for a Happy Retirement!

FROM THE BOARD

—Steve Harward

NOTE: "From the Board" is written for the purpose of relating to ACUTA members issues which come before the ACUTA Board of Directors. Inquiries or comments regarding any of these issues are encouraged and should be directed to Steve Harward. Please call (919) 962-8353.

Should ACUTA provide financial support and professional advice in order to enhance the academic development of telecommunications? What type of resources could be designated in order to offer such support? Who would be the recipient of this support? Will ACUTA realize any direct benefits from such support? How would ACUTA's support be administered and funded?

These are but a few of the questions relating to the issue of ACUTA's obligation to encourage future academic development in the field of telecommunications. ACUTA's Board began dealing with this issue at the 1981 annual conference held at the University of California, Berkeley. By the 1982 Spring Board Meeting in Chapel Hill, North Carolina, the Board resolved that ACUTA should devise a plan which would permit the organization to make some contribution toward the enhancement of the study of telecommunications. A plan was developed and approved at the 1982 annual conference in College Park, Maryland. What follows is a summary of the major considerations which affected the decision by the ACUTA Board to offer support for academic development and a brief description of the plan as it has been implemented.

ACUTA has a stated objective to "improve the professional competence of college and university telecommunications administrators." We have previously attempted to fulfill this objective by sponsoring conferences and workshops featuring topics of interest to our membership. As the importance of managing the telecommunications function has grown, the demand for professional managers versed in a broad range of engineering and management disciplines has increased. Various universities in the United States have instituted graduate and undergraduate programs designed to produce the needed telecommunications professionals. A recent survey sponsored by ICA, identified fourteen telecommunications programs in United States universities. The survey results, published in the September 1982 issue of TELECOMMUNICATIONS, noted that 49 percent of all graduates of these programs have the responsibilities and 28 percent claimed that their principal job function was telecommunications management. In addition, survey respondents indicated a history of extracurricular training in telecommunications as distinct from their formal education. The conclusion to be drawn from this information is that in order for ACUTA to offer the broadest range of educational opportunities for its members, our support needs to extend beyond our traditional conferences and workshops. We should also take steps to support the development of a more formal program of study within a college or university setting.

A second reason for ACUTA's support of further academic development is that, as a professional organization, we have a vested interest in the

advancement of our profession as a unique management skill. One should expect that the ultimate tangible results of our efforts would be more educational opportunities, improved availability of information, more attractive job opportunities, and greater professional recognition. ACUTA should also support this development in order to assure that the various curricula, most of which seem to be in their infancy, are designed to meet the needs of our membership. It is in our best interests to support, advise and assist institutions in any practical manner in order to assure that telecommunications programs exhibit the proper mix of technological and management disciplines.

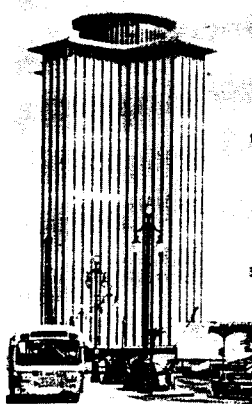
Having resolved to support academic development, the ACUTA Board budgeted a modest sum of money for this purpose and set out to make our interest known at various colleges and universities. Our Executive Vice President, Mike Toner, has been charged with the responsibility of contacting these institutions in order to determine the level of financial support and professional assistance which is needed. We envision that our support may be offered in the following forms:

- Input from professional telecommunications managers regarding curriculum planning, course content or identifying possible research topics.
- Financial support in the form of scholarships, grants for research by students or faculty and other specialized needs as approved by the ACUTA Board of Directors.

Factors which will have a bearing on the continuation of this program will be the interest expressed in our offer from the various institutions contacted, the success of our support, our ability to continue offering financial and professional support and the general feeling of the ACUTA membership regarding the value of this program. I personally feel that ACUTA has made a significant step toward the strengthening of our organization and our professional development by choosing to support this program.

Comments regarding this program are encouraged. If you have any comment or question please contact me or any Board member. ☎

Greetings from



PLAN TO ATTEND ACUTA'S FALL WORKSHOP IN NEW ORLEANS, LOUISIANA. NOVEMBER 14-16, 1982.....

TELE-CONFERENCING
DUKE UNIVERSITY

...by Jim Dronsfield, Duke University

At last, its finally happening! A voice teleconferencing unit was purchased by Duke Tel/Com from Precision Components, Model PC-50A, several years ago and for the most part gathered dust on the shelf from lack of use. Recently, however, dramatic changes have been experienced. The reduction in the availability of travel funds, the ease of set-up of the unit, and the general awareness of the availability of such equipment has placed new demands for its use.

A pre-game teleconference with members of the local media and Johnny Majors, head coach of the Tennessee Volunteers, provides an example of the type of interchange that can occur. A pre-wired four prong jack in an athletic conference room with an assigned separate line were the only requirements in order to hold the two-way interview. A caution to potential users should be interjected at this point. Circuit quality should be checked out prior to the meeting and if DDD networks are not up to standard, operator handled calling is recommended. Also, because of the heavy use of our one unit the purchase of a backup unit is highly recommended. This will allow for any breakdown or malfunction prior to or during an event. In addition, a backup unit will allow for the increasing circumstances of multiple scheduled teleconferences.

The Medical Center of Duke University has long recognized the efficiency and ease of use of the voice teleconferencing units. Markee Lecture Hall is pre-wired and ready for any type of conference that may arise even with as little as two hours notice. Medical personnel numbering up to 100 can be accommodated in this room with auxiliary two-way microphones attached to the main unit placed in the center of the room. Excellent accoustical qualities are experienced and after a few seconds of adjusting sound levels from both ends of the circuits, the give and take with distant lecturers and local proceeds naturally.

The Academic Departments of the University are beginning to recognize the potential for cost-saving with the use of this equipment. Just recently, the Zoology Department numbering some 20 members, and the Administration of the Duke Marine Laboratory located some 180 miles east of the main campus conducted a very extensive teleconference lasting some two hours. The costs were further reduced by utilizing an existing FX line between Durham and Beaufort.

A very unique application of the system is about to occur and has profound impact on the relationship between students and faculty. A graduate student is completing the dissertation for his PhD and is planning graduation in December, 1982. Unfortunately, his major advisor is in New York City on a special leave of absence for the entire semester. In order to accommodate the students professional plans, his dissertation committee and his major advisor have agreed to conduct the defense of the paper by teleconference. The use of the system will enable all

parties to conduct their normal academic endeavors with a minimum of inconvenience.

While it is recognized that the future of teleconferencing may lie in the sophisticated dedicated teleconference room with video transmission capabilities, the voice teleconferencing approach can provide a very satisfactory and relatively inexpensive solution to the same basic application. According to MIS Week Publications (9/8/82), a newspaper for information management, this cost of a freeze-frame video teleconferencing system is priced from \$18,000 to \$34,000 depending on bandwidth available and on whether the transmission is in black and white or color. Voice teleconferencing can be accomplished with units ranging from under \$300 to about \$1000 for portable teleconferencing terminals and standard DDD or operator handled long distance rates.

As a service organization, Tel/Com recognizes its responsibility to provide this type of equipment to our users. We have purposely kept our rental costs at a very low rate in order to encourage the use of the equipment. It probably will never be a high income producing activity for our department, but the visability and service nature of the endeavor provides a very positive relationship with our customers. ☎

"MOUTH OF THE SOUTH"

—Norm Sefton, Duke University

H-E-L-P!!! The boss has given me a new assignment and I need ACUTA members' help. It seems that we are a very large, sprawling campus and over the years we have discussed the feasibility and possibility of installing a visitors' information center. Each time this project has been discussed, it bogged down in bureaucracy on such trivia as the size, shape, and cost of the building, etc. My boss has tossed the old ball to me saying, "you are the wizard of telecommunications and you should be able to come up with a visitors' center that would be electronic and not require manning."

I would appreciate hearing from any of you who have visitor centers on your campuses so I don't have to reinvent the wheel, or I'd be interested in talking to anyone whose campus has a visitor center even though it is not fully automated. I am also interested in how you decided where to locate the center, i.e. did you put it where most of the visitors arrive or did you end up hiding it someplace where nobody could find it; how successful is it; how much does it take to operate it; what hours is it open; what kind of facilities and services are provided; are you using any electronic maps-talking machines-etc?

Please give me a call on (919) 684-6363.

* * * * *

Politics has got so expensive that it takes lots of money to even get beat with.

--Will Rogers

TELSTAR: TWENTY YEARS AGO

'THEY'RE RECEIVING US IN EUROPE!'

(Reprinted from the "Bell Laboratories Lab," July/August 1982. Written by, Ralph Dobriner, Bell Labs Public Relations).

* * * * *

On July 10, 1962, a small satellite designed and built by the Bell System was rocketed into space from Cape Canaveral, Florida. Within hours, the 170-pound satellite called Telstar successfully relayed television, voice, data, and facsimile in an historic demonstration of communications satellites.

The first transmission via the satellite was AT&T Chairman Frederick Kappel's telephone call from Andover, Maine, to Vice President Lyndon Johnson in Washington. The next day, the satellite relayed television signals from France and England to the United States.

Now, 20 years later, thanks to satellite communications, television networks every day carry live broadcasts from overseas. In fact, satellites now handle over half of all trans-oceanic telephone traffic, about five percent of all interstate calls, television and audio network program distribution, and high-speed data services for government and industry.

LOOKING BACK

Project director for Telstar was Eugene F. O'Neill, now Bell Labs executive director of Bell Regulated Entity Planning. He remembers the launch day well.

"At Andover we had heard, of course, that the launch appeared to be perfect. However, the orbit was such that the satellite was not accessible to us for over 12 hours after the launch. All day, reports trickled in from tracking stations around the world that all was going well, but it was still an anxious moment when Telstar finally rose above our horizon in Maine. Within minutes we had locked our antennas to its tracking beacon and transmitted the commands to turn on the broadband amplifier. It was only when those first voice signals finally came through and the pictures appeared on our TV monitors that we could all breathe again."

O'Neill gives much of the credit for the concept of getting communications into space to Dr. John R. Pierce, formerly of Bell Labs and now at California Institute of Technology. There had been earlier speculation about communications via satellite but, in 1954, Dr. Pierce made the first proposal for a communication satellite system based on a realistic appraisal of the available technology and components. That was three years before the U.S.S.R. startled the world with its Sputnik.

"Pierce recognized that because of earlier Bell Labs research and development, the essential components of a satellite communications system could be produced," O'Neill said. "These includ

ed the invention of the transistor (the first Telstar had 1000); the solar cell (3600 of which supplied the satellite's power); a long-life traveling-wave tube; horn reflector antennas; maser and parametric amplifiers (for low-noise amplification); and command guidance launch controls.

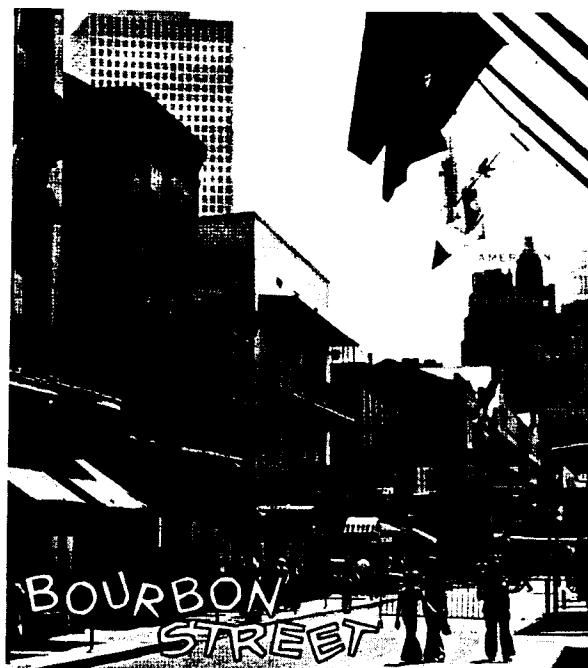
"Indeed, Pierce himself had made substantial contributions to some of these achievements," O'Neill noted.

ECHO TO INTELSAT

The first communications satellite--a 100-foot, aluminum-coated balloon called Echo I--was actually launched two years earlier. It was a passive satellite--one that reradiated signals off its surface rather than receiving, amplifying, and retransmitting them, such as Telstar and subsequent satellites have done.

The Telstar 1 satellite has been silent since 1963, and the launch of Telstar 2 that year marked the last of the Bell System experimental communications satellites. Over the next few years, the Communications Satellite Corporation (Comsat)--which had been created by Congress to help set up and run a global communications satellite system--working with the International Telecommunications Consortium (Intelsat), moved toward the goal of using satellites for commercial telephone service.

The first commercial communications satellite, Intelsat I, was launched in 1965. Known as "Early Bird," the 85-pound satellite transmitted 120 simultaneous telephone conversations between the United States and Europe. ☎



BOURBON STREET-NEW ORLEANS, LOUISIANA-Where America's most famous Dixieland Jazz Bands can be heard. For information pertaining to the New Orleans Workshop contact: Judy Halterman, Tulane University, Telecommunications Department, 31 McAlister Drive, New Orleans, LA 70118. Phone: (504) 865-5206

All Alone on the Telephone

(Reprint from the "Wall Street Journal, August 16, 1982)

Judge Harold H. Greene's order requiring changes in the AT&T-Justice Department antitrust settlement is a classic example of how vague statutory language coming out of Congress encourages courts to step beyond their proper function and enter into policy making.

Under the Tunney Act of 1974, Judge Greene had to determine whether the settlement was "in the public interest"--with absolutely no guidance from Congress as to what that means. This congressional abdication of responsibility gave the judge an open-ended mandate to impose his own preferences about how the telecommunications industry should be structured.

As it turned out, the changes he wants are fairly sensible. One of the biggest dangers of the antitrust settlement has been that local phone service might deteriorate if the divested operating companies are left in a weak financial position and, perhaps more important, if their managers, now cut off from AT&T advancement opportunities, are limited simply to regulated local service. By allowing the operating companies to keep the Yellow Pages and to market phone equipment, Judge Greene would enable them to boost their revenues and also attract more enterprising executives. The change might cloud Assistant Attorney General Baxter's distinction between regulated and unregulated businesses, but one can argue just as well that operating companies ought to keep businesses that have traditionally been connected with local service.

In addition, it is difficult for a newspaper to complain about Judge Greene's decision to bar AT&T from providing news and advertising over its own wires. The newspaper industry has long campaigned for this restriction, fearful that AT&T might limit access to transmission wires if it were in the electronic information business itself.

But judges in our republic were not meant to make decisions like this. Courts are not equipped to be administrators, nor are they supposed to make policy decisions that are the responsibility of executives and legislatures subject to electoral accountability. School systems, prisons and mental health facilities, across the country bear the scars of mismanagement by judges who have virtually taken them over during the last 10 years. Judge Greene's decision adds an unfortunate precedent for judicial intrusion into industrial structure. Even if his changes are by and large intelligent, some judges might not be as sensible as he.

It's widely expected that AT&T will want to go along with Judge Greene's changes. That would be just as well, for the decision would leave intact the most important part of the antitrust settlement--the overturning of an earlier consent decree that barred AT&T from unregulated computer and electronics businesses. It would also bring to a close the interminable Justice Department lawsuit, and with it much of the uncertainty that has bedeviled AT&T and its

competitors as they restructure themselves for new competitive challenges. Judge Greene's decision will thus be valuable if it finally clarifies the legal and regulatory rules of the game, but we wish the same result could have been reached without such violence to the proper separation of powers. **E**

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—Connie Gentry, Emory University

By the time you read this I hope I will be "vacating" in Florida, catching lots of speckled trout and anything else I can. I definitely need some R&R after the rigors of the past two months. I have discovered one thing though, and that's the fact that I can really turn out the work when I have to...it makes me wonder what I could accomplish if I really put my mind to it!!

I'm sure you must have heard by now that ex-president Carter has become an Emory faculty member and that the Carter Center for Policy Studies has been located here, too. On second thought, if you live west of the Atlanta city limits you've probably not heard about it nor do you care to!! At any rate, I just wanted you to know that government bureaucracy lives on.... at Emory!

Emory University began as a Methodist institution and you'll be pleased to know that after a hundred and some odd years it is still following Biblical principles...the right hand never knows what the left one is doing!

I don't know if you've encountered the Bell System service manager concept yet, but I thought you might like to know that it seems to be working and working well at Emory. Our orders are being completed much faster and the work force seems to be better organized. All of my wonderful Bell System friends have probably fallen out of their chairs by now since I'm not known for my lavish praise of Bell. Well, I figure praise must be earned!

While I'm issuing pats on the back, I want to be sure and include Maxine Allen of Bowling Green State University. The article on her system in the last issue of ACUTA News was great. Maxine is one of the brightest people in the field of telecommunications that I know and it's about time she had her abilities recognized.

The ACUTA Fall workshop in New Orleans looks like a winner. I'll be very interested in what is said about student abuse since we've just encountered another case of it. A student in one of our professional schools just happened to get hold of an authorization number and proceeded to run up almost a thousand dollars worth of calls to her boyfriend in one month...I wonder how she found time to study.

See you in New Orleans!